

WE CLAIM:

1. A method for reducing the allergenicity of a non-human protein is provided wherein an epitope is identified and replaced with an analogous region within a 5 human subtilisin.
2. The method according to claim 1, wherein said non-human protein comprises a protease.
- 10 3. The method according to claim 2, wherein said epitope replaced is a T-cell epitope.
- 15 4. A method for producing the protein of the invention having reduced allergenicity comprising, preparing a mutant protein by modifying a DNA encoding a precursor protein so that the modified DNA encodes the mutant protein of the invention, wherein an epitope is replaced with an analogous region from human subtilisin.
- 20 5. A mutant protein having reduced allergenicity produced according to the method of claim 4.
6. DNA encoding the mutant protein of claim 5.
- 25 7. An expression vector containing a DNA sequence according to claim 6.
8. Host cells transformed with the vectors of claim 7.
- 30 9. A method of producing a protein having reduced allergenicity wherein the host cells of claim 8 are cultivated under conditions which result in expression of the mutant protease.
10. A pharmaceutical composition comprising a human subtilisin.
11. A DNA encoding a human subtilisin.

12. A vector comprising the DNA of claim 11.

13. A host cell comprising the vector of claim 12.

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14. A human subtilisin produced by the host cell of claim 12.